After Non-Final Office Action of January 5, 2010

AMENDMENTS TO THE CLAIMS

2

1 - 21. (Cancelled)

22. (Currently amended) A compound represented by the formula

$$R^2$$
 N
 R^1
 $X-Q$
 R^3

wherein

R¹ and R² are the same or different and each is

a C₁₋₁₀ alkyl group optionally substituted by 1 to 3 substituent(s) selected from a C₃₋₁₀ cycloalkyl group, a C₁₋₆ alkoxy-carbonyl group and a C₁₋₆ alkoxy group;

R³ is a C₆₋₁₄ aryl group optionally substituted by 1 to 3 substituent(s) selected from a C₁₋₆ alkyl group optionally substituted by 1 to 3 halogen atom(s), a halogen atom, a C₁₋₆ alkoxy-carbonyl group, a carboxyl group, a hydroxy group, and a C_{1-6} alkoxy group optionally substituted by 1 to 3 halogen atom(s); R⁴ is an amino group;

L is a C₁₋₁₀ alkylene group;

Q is a bond, a C₁₋₁₀ alkylene group or a C₂₋₁₀ alkenylene group; and X is

- (2) a cyano group;
- (3) (3a) a carboxyl group;
 - (3b) a carbamoyl group;
- (3c) a C₁₋₆ alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group, a C₁₋₆ alkoxy-carbonyl group and a C₁₋₆ alkyl-carbonyloxy group;
 - (3d) an aromatic heterocyclyl-C₁₋₆ alkoxy-carbonyl group optionally

substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group and a C₁₋₆ alkoxy-carbonyl group;

(3e) a non-aromatic heterocyclyl- C_{1-6} alkoxy-carbonyl group optionally substituted by a C_{1-6} alkyl group;

- (3f) a C₇₋₁₃ aralkyloxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group, a C₁₋₆ alkoxy-carbonyl group, a halogen atom, a cyano group, a nitro group, a C₁₋₆ alkoxy group, a C₁₋₆ alkylsulfonyl group and a C₁₋₆ alkyl group (the C₁₋₆ alkyl group is optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a carboxyl group, C₁₋₆ alkoxy-carbonyl group and a carbamoyl group);
- (3g) a carbamoyl group mono- or di-substituted by a C_{1-6} alkyl group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom and a C_{1-6} alkoxy group;
- (3h) a carbamoyl- C_{1-6} alkyl-carbamoyl group optionally mono- or disubstituted by a C_{1-6} alkyl group optionally substituted by 1 to 3 halogen atom(s);
- (3i) a C_{1-6} alkoxy-carbonyl- C_{1-6} alkyl-carbamoyl group optionally substituted by a C_{1-6} alkyl group;
- (3j) a mono- or di- C_{3-10} cycloalkyl-carbamoyl group optionally substituted by a C_{1-6} alkyl group;
- (3k) a C_{7-13} aralkyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a hydroxy group, a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a C_{1-6} alkyl group;
- (3I) an aromatic heterocyclyl-C₁₋₆ alkyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group and a C₁₋₆ alkoxy-carbonyl group;
- (3m) a C_{1-6} alkylsulfonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group and a C_{1-6} alkoxy-carbonyl group;
- (3n) a C_{6-14} arylsulfonyl group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group, a carboxyl group, a carbamoyl

group, a thiocarbamoyl group, a C_{1-6} alkoxy-carbonyl group and a C_{1-6} alkylsulfonyl group;

- (3o) a nitrogen-containing heterocyclyl-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a hydroxy group, a carboxyl group and a C₁₋₆ alkoxy-carbonyl group;
- (3p) a C_{6-14} aryl-nitrogen-containing heterocyclyl-carbonyl group optionally substituted by 1 to 3 halogen atom(s);
- (3q) a C_{7-13} aralkyl-nitrogen-containing heterocyclyl-carbonyl group optionally substituted by 1 to 3 halogen atom(s);
 - (3r) a non-aromatic heterocyclyloxy-carbonyl group;
- (3s) a phosphono group optionally mono- or di-substituted by a C_{1-6} alkyl group;
 - (3t) an aromatic heterocyclyl-C₇₋₁₃ aralkyloxy-carbonyl group;
- (3u) a C_{3-10} cycloalkyl- C_{1-6} alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group;
- (3v) a C_{6-14} aryl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from an amino group optionally mono- or di-substituted by a C_{1-6} alkyl group, a carboxyl group, a C_{1-6} alkoxy-carbonyl group, an aromatic heterocyclic group, a non-aromatic heterocyclic group and a carbamoyl group; or
- (3w) an aromatic heterocyclyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxycarbonyl group and a carbamoyl group;
 - (4) (4a) a C_{1-6} alkyl-carbonyloxy group;
- (4b) a C_{1-10} alkoxy group optionally substituted by 1 to 3 substituent(s) selected from a hydroxy group, a carboxyl group, a carbamoyl group and a C_{1-6} alkoxy-carbonyl group;
- (4c) a C_{6-14} aryloxy group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a carboxyl group, a C_{1-6} alkoxycarbonyl group, a C_{1-6} alkylthio group, a carbamoyl group, a C_{1-6} alkylsulfonyl group, a C_{1-6} alkylsulfinyl group and a C_{1-6} alkyl group (the C_{1-6}

alkyl group is optionally substituted by 1 or 2 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group);

- (4d) a 5- or 6-membered aromatic heterocyclyloxy group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group (the C_{1-6} alkyl group is optionally substituted by 1 or 2 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group), a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group;
- (4e) a fused aromatic heterocyclyloxy group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group;
- (4f) an aromatic heterocyclyl-C₁₋₆ alkoxy group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group; or
 - (4g) an aromatic heterocyclyl-C₆₋₁₄ aryloxy group;
- (5) (5a) a C₁₋₆ alkylthio group optionally substituted by 1 to 3 substituent(s) selected from a hydroxy group, a carboxyl group, a carbamoyl group and a C₁₋₆ alkoxy-carbonyl group;
- (5b) a C_{6-14} arylthio group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group, a C_{1-6} alkylthio group and a carbamoyl group; or
- (5c) a 5- or 6-membered aromatic heterocyclylthio group optionally substituted by 1 to 3 substituent(s) selected from a C₁₋₆ alkyl group, a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group;
 - (6) (6a) an amino group;
 - (6b) a C₁₋₆ alkoxy-carbonyl-C₁₋₁₀ alkylamino group;
 - (6c) a carboxy-C₁₋₁₀ alkylamino group;
- (6d) a C₇₋₁₃ aralkyloxy-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group;
 - (6e) a carbamoylamino group;
 - (6f) a mono- or di-C₁₋₆ alkyl-carbamoylamino group;

(6g) a C₁₋₆ alkylsulfonylamino group;

- (6h) a C_{6-14} arylsulfonylamino group optionally substituted by a C_{1-6} alkylsulfonyl group;
- (6i) an aromatic heterocyclyl-sulfonylamino group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group and a monoor di- $(C_{1-6}$ alkyl-carbonyl)-amino group;
 - (6j) a mono- or di-(C₁₋₆ alkyl-carbonyl)-amino group;
 - (6k) a C₃₋₁₀ cycloalkyl-carbonylamino group;

- (6l) a C_{6-14} aryl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a cyano group, an optionally halogenated C_{1-6} alkyl group, a C_{1-6} alkoxy group, a carboxyl group, a C_{1-6} alkoxy-carbonyl group, an aromatic heterocyclic group, a non-aromatic heterocyclic group and a carbamoyl group;
 - (6m) a C₇₋₁₃ aralkyl-carbonylamino group;
 - (6n) a C₈₋₁₃ arylalkenyl-carbonylamino group;
- (6o) an aromatic heterocyclyl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group, a C_{6-14} aryl group, a C_{7-13} aralkyl group, a C_{1-6} alkoxy group, a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group;
- (6p) a nitrogen-containing heterocyclyl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group (the C_{1-6} alkyl group is optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group), a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group;
- (6q) a C_{6-14} aryl-nitrogen-containing heterocyclyl-carbonylamino group;
 - (6r) a tetrahydropyranylcarbonylamino group;
- (6s) a 4-oxo-4,5,6,7-tetrahydro-1-benzofuranyl-carbonylamino group;
- (6t) a C_{1-6} alkoxy-carbonylamino group optionally substituted by a C_{1-6} alkoxy-carbonyl group;

- (6u) a C_{6-14} aryloxy-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group;
 - (6v) a C₇₋₁₃ aralkyl-carbamoylamino group; or

7

- . (6w) an aromatic heterocyclyl-carbamoylamino group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group; or
 - (7) (7a) tetrazolyl;
 - (7b) oxoimidazolidinyl;
- (7c) dioxoimidazolidinyl optionally substituted by a C_{1-6} alkyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group and a C_{1-6} alkoxy-carbonyl group;
 - (7d) oxopiperazinyl;
 - (7e) dioxopiperazinyl;
 - (7f) oxodihydrooxadiazolyl;
 - (7g) dioxoisoindolyl;
 - (7h) oxazolyl optionally substituted by a C₁₋₆ alkoxy-carbonyl group;
- (7i) dioxooxazolidinyl or dioxothiazolidinyl, each of which is optionally substituted by a C_{1-6} alkyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group and a C_{1-6} alkoxy-carbonyl group;
- (7j) 4-oxo-2-thioxo-1,3-thiazolidin-5-yl or 4-oxo-2-thioxo-1,3-oxazolidin-5-yl, each of which is optionally substituted by a C_{1-6} alkyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group and a C_{1-6} alkoxy-carbonyl group;
 - (7k) 1,3(2H,5H)-dioxo-tetrahydroimidazo[1,5-a]pyridinyl;
 - (7I) 1,3(2H,5H)-dioxo-10,10a-dihydroimidazo[1,5-b]isoquinolinyl; or
 - (7m) a C₆₋₁₄ aryl group optionally substituted by a C₁₋₆ alkoxy-

carbonyl group;

provided that

when X is an ethoxycarbonyl group, then Q is a $C_{1\text{--}10}$ alkylene group or a $C_{2\text{--}10}$ alkenylene group

or a salt thereof.

23. (Previously presented) The compound of claim 22, wherein X is (2) a cyano group;

- (3) (3a) a carboxyl group;
 - (3b) a carbamoyl group;
- (3c) a C₁₋₆ alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group, a C₁₋₆ alkoxy-carbonyl group and a C₁₋₆ alkyl-carbonyloxy group;
- (3d) an aromatic heterocyclyl- C_{1-6} alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group and a C_{1-6} alkoxy-carbonyl group;
- (3e) a non-aromatic heterocyclyl- C_{1-6} alkoxy-carbonyl group optionally substituted by a C_{1-6} alkyl group;
- (3f) a C_{7-13} aralkyloxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group, a C_{1-6} alkoxy-carbonyl group, a halogen atom, a cyano group, a nitro group, a C_{1-6} alkoxy group, a C_{1-6} alkylsulfonyl group and a C_{1-6} alkyl group (the C_{1-6} alkyl group is optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a carboxyl group, C_{1-6} alkoxy-carbonyl group and a carbamoyl group);
- (3g) a carbamoyl group mono- or di-substituted by a C_{1-6} alkyl group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom and a C_{1-6} alkoxy group;
- (3h) a carbamoyl- C_{1-6} alkyl-carbamoyl group optionally mono- or disubstituted by a C_{1-6} alkyl group optionally substituted by 1 to 3 halogen atom(s);
- (3i) a C_{1-6} alkoxy-carbonyl- C_{1-6} alkyl-carbamoyl group optionally substituted by a C_{1-6} alkyl group;
- (3j) a mono- or di- C_{3-10} cycloalkyl-carbamoyl group optionally substituted by a C_{1-6} alkyl group;

(3k) a C_{7-13} aralkyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a hydroxy group, a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a C_{1-6} alkyl group;

- (3I) an aromatic heterocyclyl- C_{1-6} alkyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group and a C_{1-6} alkoxy-carbonyl group;
- (3m) a C₁₋₆ alkylsulfonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group and a C₁₋₆ alkoxy-carbonyl group;
- (3n) a C_{6-14} arylsulfonyl group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group, a carboxyl group, a carbamoyl group, a thiocarbamoyl group, a C_{1-6} alkoxy-carbonyl group and a C_{1-6} alkylsulfonyl group;
- (3o) a nitrogen-containing heterocyclyl-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a hydroxy group, a carboxyl group and a C₁₋₆ alkoxy-carbonyl group;
- (3p) a C_{6-14} aryl-nitrogen-containing heterocyclyl-carbonyl group optionally substituted by 1 to 3 halogen atom(s);
- (3q) a C_{7-13} aralkyl-nitrogen-containing heterocyclyl-carbonyl group optionally substituted by 1 to 3 halogen atom(s);
 - (3r) a non-aromatic heterocyclyloxy-carbonyl group;
- (3s) a phosphono group optionally mono- or di-substituted by a C₁₋₆ alkyl group;
 - (3t) an aromatic heterocyclyl-C₇₋₁₃ aralkyloxy-carbonyl group;
- (3u) a C_{3-10} cycloalkyl- C_{1-6} alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group;
- (3v) a C_{6-14} aryl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from an amino group optionally mono- or di-substituted by a C_{1-6} alkyl group, a carboxyl group, a C_{1-6} alkoxy-carbonyl group, an aromatic heterocyclic group, a non-aromatic heterocyclic group and a carbamoyl group; or

(3w) an aromatic heterocyclyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group;

- (4) (4a) a C₁₋₆ alkyl-carbonyloxy group;
- (4b) a C_{1-10} alkoxy group optionally substituted by 1 to 3 substituent(s) selected from a hydroxy group, a carboxyl group, a carbamoyl group and a C_{1-6} alkoxy-carbonyl group;
- (4c) a C_{6-14} aryloxy group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a carboxyl group, a C_{1-6} alkoxycarbonyl group, a C_{1-6} alkylthio group, a carbamoyl group, a C_{1-6} alkylsulfonyl group, a C_{1-6} alkylsulfinyl group and a C_{1-6} alkyl group (the C_{1-6} alkyl group is optionally substituted by 1 or 2 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group);
- (4d) a 5- or 6-membered aromatic heterocyclyloxy group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group (the C_{1-6} alkyl group is optionally substituted by 1 or 2 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group), a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group;
- (4e) a fused aromatic heterocyclyloxy group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group;
- (4f) an aromatic heterocyclyl- C_{1-6} alkoxy group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group; or
 - (4g) an aromatic heterocyclyl-C₆₋₁₄ aryloxy group;
- (5) (5a) a C₁₋₆ alkylthio group optionally substituted by 1 to 3 substituent(s) selected from a hydroxy group, a carboxyl group, a carbamoyl group and a C₁₋₆ alkoxy-carbonyl group;
- (5b) a C_{6-14} arylthio group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group, a C_{1-6} alkylthio group and a carbamoyl group; or

After Non-Final Office Action of January 5, 2010

(5c) a 5- or 6-membered aromatic heterocyclylthio group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group, a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group; or

- (7) (7a) tetrazolyl;
 - (7b) oxoimidazolidinyl;
- (7c) dioxoimidazolidinyl optionally substituted by a C_{1-6} alkyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group and a C_{1-6} alkoxy-carbonyl group;
 - (7d) oxopiperazinyl;
 - (7e) dioxopiperazinyl;
 - (7f) oxodihydrooxadiazolyl;
 - (7g) dioxoisoindolyl;
 - (7h) oxazolyl optionally substituted by a C₁₋₆ alkoxy-carbonyl group;
- (7i) dioxooxazolidinyl or dioxothiazolidinyl, each of which is optionally substituted by a C_{1-6} alkyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group and a C_{1-6} alkoxy-carbonyl group;
- (7j) 4-oxo-2-thioxo-1,3-thiazolidin-5-yl or 4-oxo-2-thioxo-1,3-oxazolidin-5-yl, each of which is optionally substituted by a C_{1-6} alkyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group and a C_{1-6} alkoxy-carbonyl group;
 - (7k) 1,3(2H,5H)-dioxo-tetrahydroimidazo[1,5-a]pyridinyl;
 - (7I) 1,3(2H,5H)-dioxo-10,10a-dihydroimidazo[1,5-b]isoquinolinyl; or
- (7m) a C_{6-14} aryl group optionally substituted by a C_{1-6} alkoxycarbonyl group.
- 24. (Cancelled)
- 25. (Currently amended) The compound of claim 22, wherein R3 3 is a C6-14 C₆₋₁₄ aryl group optionally substituted by 1 to 3 substituent(s) selected from a C1-6 C₁₋₆ alkyl group optionally substituted by 1 to 3 halogen atom(s) and a halogen atom.
- 26. (Cancelled)

After Non-Final Office Action of January 5, 2010

27. (Previously presented) The compound of claim 22, wherein X is

- (3) (3a) a carboxyl group;
 - (3b) a carbamoyl group;
- (3c) a C₁₋₆ alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group, a C₁₋₆ alkoxy-carbonyl group and a C₁₋₆ alkyl-carbonyloxy group;
- (3d) an aromatic heterocyclyl-C₁₋₆ alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group and a C₁₋₆ alkoxy-carbonyl group;
- (3e) a non-aromatic heterocyclyl- C_{1-6} alkoxy-carbonyl group optionally substituted by a C_{1-6} alkyl group;
- (3f) a C_{7-13} aralkyloxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group, a C_{1-6} alkoxy-carbonyl group, a halogen atom, a cyano group, a nitro group, a C_{1-6} alkoxy group, a C_{1-6} alkylsulfonyl group and a C_{1-6} alkyl group (the C_{1-6} alkyl group is optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a carboxyl group, C_{1-6} alkoxy-carbonyl group and a carbamoyl group);
- (3g) a carbamoyl group mono- or di-substituted by a C_{1-6} alkyl group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom and a C_{1-6} alkoxy group;
- (3h) a carbamoyl- C_{1-6} alkyl-carbamoyl group optionally mono- or disubstituted by a C_{1-6} alkyl group optionally substituted by 1 to 3 halogen atom(s);
- (3i) a C_{1-6} alkoxy-carbonyl- C_{1-6} alkyl-carbamoyl group optionally substituted by a C_{1-6} alkyl group;
- (3j) a mono- or di- C_{3-10} cycloalkyl-carbamoyl group optionally substituted by a C_{1-6} alkyl group;
- (3k) a C_{7-13} aralkyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a hydroxy group, a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a C_{1-6} alkyl group;

(3I) an aromatic heterocyclyl-C₁₋₆ alkyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group and a C₁₋₆ alkoxy-carbonyl group;

- (3m) a C_{1-6} alkylsulfonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group and a C_{1-6} alkoxy-carbonyl group;
- (3n) a C_{6-14} arylsulfonyl group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group, a carboxyl group, a carbamoyl group, a thiocarbamoyl group, a C_{1-6} alkoxy-carbonyl group and a C_{1-6} alkylsulfonyl group;
- (3o) a nitrogen-containing heterocyclyl-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a hydroxy group, a carboxyl group and a C₁₋₆ alkoxy-carbonyl group;
- (3p) a C_{6-14} aryl-nitrogen-containing heterocyclyl-carbonyl group optionally substituted by 1 to 3 halogen atom(s);
- (3q) a C₇₋₁₃ aralkyl-nitrogen-containing heterocyclyl-carbonyl group optionally substituted by 1 to 3 halogen atom(s);
 - (3r) a non-aromatic heterocyclyloxy-carbonyl group;
- (3s) a phosphono group optionally mono- or di-substituted by a C₁₋₆ alkyl group;
 - (3t) an aromatic heterocyclyl-C₇₋₁₃ aralkyloxy-carbonyl group;
- (3u) a C_{3-10} cycloalkyl- C_{1-6} alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group;
- (3v) a C_{6-14} aryl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from an amino group optionally mono- or di-substituted by a C_{1-6} alkyl group, a carboxyl group, a C_{1-6} alkoxy-carbonyl group, an aromatic heterocyclic group, a non-aromatic heterocyclic group and a carbamoyl group; or
- (3w) an aromatic heterocyclyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group;

- (4) (4a) a C_{1-6} alkyl-carbonyloxy group;
- (4b) a C_{1-10} alkoxy group optionally substituted by 1 to 3 substituent(s) selected from a hydroxy group, a carboxyl group, a carbamoyl group and a C_{1-6} alkoxy-carbonyl group;

- (4c) a C_{6-14} aryloxy group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a carboxyl group, a C_{1-6} alkoxycarbonyl group, a C_{1-6} alkylthio group, a carbamoyl group, a C_{1-6} alkylsulfonyl group, a C_{1-6} alkylsulfinyl group and a C_{1-6} alkyl group (the C_{1-6} alkyl group is optionally substituted by 1 or 2 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group);
- (4d) a 5- or 6-membered aromatic heterocyclyloxy group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group (the C_{1-6} alkyl group is optionally substituted by 1 or 2 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group), a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group;
- (4e) a fused aromatic heterocyclyloxy group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group;
- (4f) an aromatic heterocyclyl- C_{1-6} alkoxy group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group; or
 - (4g) an aromatic heterocyclyl-C₆₋₁₄ aryloxy group;
- (5) (5a) a C_{1-6} alkylthio group optionally substituted by 1 to 3 substituent(s) selected from a hydroxy group, a carboxyl group, a carbamoyl group and a C_{1-6} alkoxy-carbonyl group;
- (5b) a C_{6-14} arylthio group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group, a C_{1-6} alkylthio group and a carbamoyl group; or
- (5c) a 5- or 6-membered aromatic heterocyclylthio group optionally substituted by 1 to 3 substituent(s) selected from a C₁₋₆ alkyl group, a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group; or

- (6) (6a) an amino group;
 - (6b) a C₁₋₆ alkoxy-carbonyl-C₁₋₁₀ alkylamino group;
 - (6c) a carboxy-C₁₋₁₀ alkylamino group;
- (6d) a C₇₋₁₃ aralkyloxy-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group;
 - (6e) a carbamoylamino group;
 - (6f) a mono- or di-C₁₋₆ alkyl-carbamoylamino group;
 - (6g) a C₁₋₆ alkylsulfonylamino group;
- (6h) a C_{6-14} arylsulfonylamino group optionally substituted by a C_{1-6} alkylsulfonyl group;
- (6i) an aromatic heterocyclyl-sulfonylamino group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group and a monoor di-(C_{1-6} alkyl-carbonyl)-amino group;
 - (6j) a mono- or di-(C₁₋₆ alkyl-carbonyl)-amino group;
 - (6k) a C₃₋₁₀ cycloalkyl-carbonylamino group;
- (6I) a C₆₋₁₄ aryl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a cyano group, an optionally halogenated C₁₋₆ alkyl group, a C₁₋₆ alkoxy group, a carboxyl group, a C₁₋₆ alkoxy-carbonyl group, an aromatic heterocyclic group, a non-aromatic heterocyclic group and a carbamoyl group;
 - (6m) a C₇₋₁₃ aralkyl-carbonylamino group;
 - (6n) a C₈₋₁₃ arylalkenyl-carbonylamino group;
- (6o) an aromatic heterocyclyl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a C₁₋₆ alkyl group, a C₆₋₁₄ aryl group, a C₇₋₁₃ aralkyl group, a C₁₋₆ alkoxy group, a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group;
- (6p) a nitrogen-containing heterocyclyl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a C₁₋₆ alkyl group (the C₁₋₆ alkyl group is optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group), a carboxyl

After Non-Final Office Action of January 5, 2010

group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group;

- (6q) a C₆₋₁₄ aryl-nitrogen-containing heterocyclyl-carbonylamino group;
 - (6r) a tetrahydropyranylcarbonylamino group;

16

- (6s) a 4-oxo-4,5,6,7-tetrahydro-1-benzofuranyl-carbonylamino group;
- (6t) a C_{1-6} alkoxy-carbonylamino group optionally substituted by a C_{1-6} alkoxy-carbonyl group;
- (6u) a C_{6-14} aryloxy-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group;
 - (6v) a C₇₋₁₃ aralkyl-carbamoylamino group; or
- (6w) an aromatic heterocyclyl-carbamoylamino group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a $C_{1.6}$ alkoxycarbonyl group and a carbamoyl group.
- 28. (Previously presented) The compound of claim 22, wherein X is a carboxyl group.
- 29. (Previously presented) The compound of claim 22, which is 5-(aminomethyl)-2-methyl-4-(4-methylphenyl)-6-neopentylnicotinic acid;

5-(aminomethyl)-6-isobutyl-2-methyl-4-(4-methylphenyl)nicotinic acid;

methyl 3-{[5-(aminomethyl)-6-isobutyl-2-methyl-4-(4-methylphenyl)pyridin-3-

yl]methoxy}-1-methyl-1H-pyrazole-4-carboxylate;

{[2-isobutyl-6-methyl-4-(4-methylphenyl)-5-(2-morpholin-4-yl-2-oxoethyl)pyridin-3-yl]methyl}amine;

methyl 3-({[5-(aminomethyl)-6-isobutyl-2-methyl-4-(4-methylphenyl)pyridin-3-yl]acetyl}amino)benzoate;

N-[5-(aminomethyl)-6-isobutyl-2-methyl-4-(4-methylphenyl)pyridin-3-yl]isoxazole-4-carboxamide,

or a salt thereof.

Docket No.: 66540(46590)

- 30. (Previously presented) A pharmaceutical agent comprising a compound of claim 22 or a salt thereof.
- 31. (Currently amended) The pharmaceutical agent of claim 30, which is an agent for the treatment of the impaired glucose tolerance or obesity.
- 32. (Previously presented) A peptidase inhibitor comprising a compound of claim 22 or a salt thereof.
- 33. (Previously presented) The inhibitor of claim 32, wherein the peptidase is dipeptidyl dipeptidase-IV.
- 34. (Withdrawn) A method for the treatment of impaired glucose tolerance or obesity in a mammal, which comprises administering a compound of claim 22 or a salt thereof to the mammal.
- 35. (Withdrawn) A method of inhibiting peptidase in a mammal, which comprises administering a compound of claim 22 or a salt thereof to the mammal.
- 36. (Previously presented) A production method of a compound represented by the formula

wherein

R¹, R², R³ and Q are as defined in claim 22; La is a bond or a C₁₋₉ alkylene group; and Xa is

- (3) (3a) a carboxyl group;
 - (3b) a carbamoyl group;
 - (3c) a C₁₋₆ alkoxy-carbonyl group optionally substituted by 1 to 3

substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group, a C_{1-6} alkoxy-carbonyl group and a C_{1-6} alkyl-carbonyloxy group;

- (3d) an aromatic heterocyclyl-C₁₋₆ alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group and a C₁₋₆ alkoxy-carbonyl group;
- (3e) a non-aromatic heterocyclyl- C_{1-6} alkoxy-carbonyl group optionally substituted by a C_{1-6} alkyl group;
- (3f) a C_{7-13} aralkyloxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group, a C_{1-6} alkoxy-carbonyl group, a halogen atom, a cyano group, a nitro group, a C_{1-6} alkoxy group, a C_{1-6} alkylsulfonyl group and a C_{1-6} alkyl group (the C_{1-6} alkyl group is optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a carboxyl group, C_{1-6} alkoxy-carbonyl group and a carbamoyl group);
- (3g) a carbamoyl group mono- or di-substituted by a C_{1-6} alkyl group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom and a C_{1-6} alkoxy group;
- (3h) a carbamoyl- C_{1-6} alkyl-carbamoyl group optionally mono- or disubstituted by a C_{1-6} alkyl group optionally substituted by 1 to 3 halogen atom(s);
- (3i) a C_{1-6} alkoxy-carbonyl- C_{1-6} alkyl-carbamoyl group optionally substituted by a C_{1-6} alkyl group;
- (3j) a mono- or di- C_{3-10} cycloalkyl-carbamoyl group optionally substituted by a C_{1-6} alkyl group;
- (3k) a C_{7-13} aralkyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a hydroxy group, a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a C_{1-6} alkyl group;
- (3I) an aromatic heterocyclyl-C₁₋₆ alkyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group and a C₁₋₆ alkoxy-carbonyl group;
 - (3m) a C₁₋₆ alkylsulfonyl group optionally substituted by 1 to 3

substituent(s) selected from a carboxyl group, a carbamoyl group and a C₁₋₆ alkoxy-carbonyl group;

- (3n) a C_{6-14} arylsulfonyl group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group, a carboxyl group, a carbamoyl group, a thiocarbamoyl group, a C_{1-6} alkoxy-carbonyl group and a C_{1-6} alkylsulfonyl group;
- (3o) a nitrogen-containing heterocyclyl-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a hydroxy group, a carboxyl group and a C₁₋₆ alkoxy-carbonyl group;
- (3p) a C₆₋₁₄ aryl-nitrogen-containing heterocyclyl-carbonyl group optionally substituted by 1 to 3 halogen atom(s);
- (3q) a C₇₋₁₃ aralkyl-nitrogen-containing heterocyclyl-carbonyl group optionally substituted by 1 to 3 halogen atom(s);
 - (3r) a non-aromatic heterocyclyloxy-carbonyl group;
- (3s) a phosphono group optionally mono- or di-substituted by a C_{1-6} alkyl group;
 - (3t) an aromatic heterocyclyl-C₇₋₁₃ aralkyloxy-carbonyl group;
- (3u) a C₃₋₁₀ cycloalkyl-C₁₋₆ alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group;
- (3v) a C₆₋₁₄ aryl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from an amino group optionally mono- or di-substituted by a C₁₋₆ alkyl group, a carboxyl group, a C₁₋₆ alkoxy-carbonyl group, an aromatic heterocyclic group, a non-aromatic heterocyclic group and a carbamoyl group; or
- (3w) an aromatic heterocyclyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group;
- (4) (4a) a C_{1-6} alkyl-carbonyloxy group;
- (4b) a C₁₋₁₀ alkoxy group optionally substituted by 1 to 3 substituent(s) selected from a hydroxy group, a carboxyl group, a carbamoyl group and a C₁₋₆ alkoxy-carbonyl group;

- (4c) a C_{6-14} aryloxy group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a carboxyl group, a C_{1-6} alkoxy-carbonyl group, a C_{1-6} alkylthio group, a carbamoyl group, a C_{1-6} alkoxy group, a C_{1-6} alkylsulfinyl group and a C_{1-6} alkyl group (the C_{1-6} alkyl group is optionally substituted by 1 or 2 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group);
- (4d) a 5- or 6-membered aromatic heterocyclyloxy group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group (the C_{1-6} alkyl group is optionally substituted by 1 or 2 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group), a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group;
- (4e) a fused aromatic heterocyclyloxy group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group;
- (4f) an aromatic heterocyclyl-C₁₋₆ alkoxy group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group; or
 - (4g) an aromatic heterocyclyl-C₆₋₁₄ aryloxy group;
- (5) (5a) a C_{1-6} alkylthio group optionally substituted by 1 to 3 substituent(s) selected from a hydroxy group, a carboxyl group, a carbamoyl group and a C_{1-6} alkoxy-carbonyl group;
- (5b) a C_{6-14} arylthio group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group, a C_{1-6} alkylthio group and a carbamoyl group; or
- (5c) a 5- or 6-membered aromatic heterocyclylthio group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group, a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group;
- (6) (6a) an amino group;
 - (6b) a C₁₋₆ alkoxy-carbonyl-C₁₋₁₀ alkylamino group;
 - (6c) a carboxy-C₁₋₁₀ alkylamino group;
 - (6d) a C₇₋₁₃ aralkyloxy-carbonylamino group optionally substituted by 1 to

3 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group;

- (6e) a carbamoylamino group;
- (6f) a mono- or di-C₁₋₆ alkyl-carbamoylamino group;
- (6g) a C₁₋₆ alkylsulfonylamino group;
- (6h) a C_{6-14} arylsulfonylamino group optionally substituted by a C_{1-6} alkylsulfonyl group;
- (6i) an aromatic heterocyclyl-sulfonylamino group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group and a mono- or di-(C_{1-6} alkyl-carbonyl)-amino group;
 - (6j) a mono- or di-(C₁₋₆ alkyl-carbonyl)-amino group;
 - (6k) a C₃₋₁₀ cycloalkyl-carbonylamino group;
- (6l) a C₆₋₁₄ aryl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a cyano group, an optionally halogenated C₁₋₆ alkyl group, a C₁₋₆ alkoxy group, a carboxyl group, a C₁₋₆ alkoxy-carbonyl group, an aromatic heterocyclic group, a non-aromatic heterocyclic group and a carbamoyl group;
 - (6m) a C₇₋₁₃ aralkyl-carbonylamino group;
 - (6n) a C₈₋₁₃ arylalkenyl-carbonylamino group;
- (6o) an aromatic heterocyclyl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group, a C_{6-14} aryl group, a C_{7-13} aralkyl group, a C_{1-6} alkoxy group, a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group;
- (6p) a nitrogen-containing heterocyclyl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group (the C_{1-6} alkyl group is optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group), a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group;
 - (6q) a C₆₋₁₄ aryl-nitrogen-containing heterocyclyl-carbonylamino group;
 - (6r) a tetrahydropyranylcarbonylamino group;
 - (6s) a 4-oxo-4,5,6,7-tetrahydro-1-benzofuranyl-carbonylamino group;

- (6t) a C_{1-6} alkoxy-carbonylamino group optionally substituted by a C_{1-6} alkoxy-carbonyl group;
- (6u) a C₆₋₁₄ aryloxy-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group;

Docket No.: 66540(46590)

- (6v) a C₇₋₁₃ aralkyl-carbamoylamino group; or
- (6w) an aromatic heterocyclyl-carbamoylamino group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group; or
- (7) (7a) tetrazolyl;
 - (7b) oxoimidazolidinyl;
- (7c) dioxoimidazolidinyl optionally substituted by a C₁₋₆ alkyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group and a C₁₋₆ alkoxy-carbonyl group;
 - (7d) oxopiperazinyl;
 - (7e) dioxopiperazinyl;
 - (7f) oxodihydrooxadiazolyl;
 - (7g) dioxoisoindolyl;
 - (7h) oxazolyl optionally substituted by a C₁₋₆ alkoxy-carbonyl group;
- (7i) dioxooxazolidinyl or dioxothiazolidinyl, each of which is optionally substituted by a C_{1-6} alkyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group and a C_{1-6} alkoxy-carbonyl group;
- (7j) 4-oxo-2-thioxo-1,3-thiazolidin-5-yl or 4-oxo-2-thioxo-1,3-oxazolidin-5-yl, each of which is optionally substituted by a C_{1-6} alkyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group and a C_{1-6} alkoxy-carbonyl group;
 - (7k) 1,3(2H,5H)-dioxo-tetrahydroimidazo[1,5-a]pyridinyl;
 - (7I) 1,3(2H,5H)-dioxo-10,10a-dihydroimidazo[1,5-b]isoquinolinyl; or
- (7m) a C_{6-14} aryl group optionally substituted by a C_{1-6} alkoxy-carbonyl group;

or a salt thereof, which comprises subjecting a compound represented by the

Docket No.: 66540(46590)

Application No. 10/577,561 Amendment dated April 5, 2010 After Non-Final Office Action of January 5, 2010

formula

wherein each symbol is as defined above, or a salt thereof to a reduction reaction.

- 37. (Previously presented) The compound of claim 22, wherein R^3 is a phenyl group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group optionally substituted by 1 to 3 halogen atom(s) and a halogen atom.
- 38. (Previously presented) The compound of claim 22, wherein X is
- (3) (3a) a carboxyl group;
 - (3b) a carbamoyl group;
- (3c) a C_{1-6} alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group, a C_{1-6} alkoxy-carbonyl group and a C_{1-6} alkyl-carbonyloxy group;
- (3d) an aromatic heterocyclyl-C₁₋₆ alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group and a C₁₋₆ alkoxy-carbonyl group;
- (3e) a non-aromatic heterocyclyl- C_{1-6} alkoxy-carbonyl group optionally substituted by a C_{1-6} alkyl group;
- (3g) a carbamoyl group mono- or di-substituted by a C_{1-6} alkyl group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom and a C_{1-6} alkoxy group;
- (3h) a carbamoyl- C_{1-6} alkyl-carbamoyl group optionally mono- or di-substituted by a C_{1-6} alkyl group optionally substituted by 1 to 3 halogen atom(s);
- (3i) a C_{1-6} alkoxy-carbonyl- C_{1-6} alkyl-carbamoyl group optionally substituted by a C_{1-6} alkyl group;
 - (3j) a mono- or di-C₃₋₁₀ cycloalkyl-carbamoyl group optionally substituted by a C₁₋

6 alkyl group;

(3k) a C_{7-13} aralkyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a hydroxy group, a carboxyl group, a C_{1-6} alkoxycarbonyl group and a C_{1-6} alkyl group;

- (3I) an aromatic heterocyclyl-C₁₋₆ alkyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group and a C₁₋₆ alkoxy-carbonyl group;
 - (3r) a non-aromatic heterocyclyloxy-carbonyl group;
- (4) (4b) a C_{1-10} alkoxy group optionally substituted by 1 to 3 substituent(s) selected from a hydroxy group, a carboxyl group, a carbamoyl group and a C_{1-6} alkoxy-carbonyl group;
- (4c) a C_{6-14} aryloxy group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a carboxyl group, a C_{1-6} alkoxy-carbonyl group, a C_{1-6} alkylthio group, a carbamoyl group, a C_{1-6} alkoxy group, a C_{1-6} alkylsulfonyl group, a C_{1-6} alkylsulfinyl group and a C_{1-6} alkyl group (the C_{1-6} alkyl group is optionally substituted by 1 or 2 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group);
- (4d) a 5- or 6-membered aromatic heterocyclyloxy group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group (the C_{1-6} alkyl group is optionally substituted by 1 or 2 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxycarbonyl group and a carbamoyl group), a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group;
- (6) (6d) a C₇₋₁₃ aralkyloxy-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group;
- (6I) a C₆₋₁₄ aryl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a cyano group, an optionally halogenated C₁₋₆ alkyl group, a C₁₋₆ alkoxy group, a carboxyl group, a C₁₋₆ alkoxy-carbonyl group, an aromatic heterocyclic group, a non-aromatic heterocyclic group and a carbamoyl group;
- (60) an aromatic heterocyclyl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group, a C_{6-14} aryl group, a C_{7-13} aralkyl group,

a C_{1-6} alkoxy group, a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group; or

- (6p) a nitrogen-containing heterocyclyl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group (the C_{1-6} alkyl group is optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group), a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group.
- 39. (Previously presented) The compound of claim 22, wherein X is
 - (3) (3a) a carboxyl group;
 - (3b) a carbamoyl group;
 - (3c) a C_{1-6} alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group, a C_{1-6} alkoxy-carbonyl group and a C_{1-6} alkyl-carbonyloxy group;
 - (3d) an aromatic heterocyclyl-C₁₋₆ alkoxy-carbonyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group, a thiocarbamoyl group and a C₁₋₆ alkoxy-carbonyl group;
 - (3e) a non-aromatic heterocyclyl- C_{1-6} alkoxy-carbonyl group optionally substituted by a C_{1-6} alkyl group;
 - (3g) a carbamoyl group mono- or di-substituted by a C_{1-6} alkyl group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom and a C_{1-6} alkoxy group;
 - (3h) a carbamoyl-C₁₋₆ alkyl-carbamoyl group optionally mono- or disubstituted by a C₁₋₆ alkyl group optionally substituted by 1 to 3 halogen atom(s);
 - (3i) a C_{1-6} alkoxy-carbonyl- C_{1-6} alkyl-carbamoyl group optionally substituted by a C_{1-6} alkyl group;
 - (3j) a mono- or di- C_{3-10} cycloalkyl-carbamoyl group optionally substituted by a C_{1-6} alkyl group;
 - (3k) a C₇₋₁₃ aralkyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a hydroxy group, a carboxyl group,

26

Application No. 10/577,561 Amendment dated April 5, 2010 After Non-Final Office Action of January 5, 2010

- a C₁₋₆ alkoxy-carbonyl group and a C₁₋₆ alkyl group;
- (3I) an aromatic heterocyclyl-C₁₋₆ alkyl-carbamoyl group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a carbamoyl group and a C₁₋₆ alkoxy-carbonyl group; or

- (3r) a non-aromatic heterocyclyloxy-carbonyl group.
- (Previously presented) The compound of claim 22, wherein X is 40.
 - (3a) a carboxyl group; (3)
 - (3e) a non-aromatic heterocyclyl-C₁₋₆ alkoxy-carbonyl group optionally substituted by a C₁₋₆ alkyl group; or
 - (3r) a non-aromatic heterocyclyloxy-carbonyl group.
- (Previously presented) The compound of claim 22, wherein X is 41.
 - (4b) a C_{1-10} alkoxy group optionally substituted by 1 to 3 substituent(s) selected from a hydroxy group, a carboxyl group, a carbamoyl group and a C₁₋₆ alkoxy-carbonyl group;
 - (4c) a C_{6-14} aryloxy group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a carboxyl group, a C₁₋₆ alkoxy-carbonyl group, a C₁₋₆ alkylthio group, a carbamoyl group, a C₁₋₆ alkoxy group, a C₁₋₆ alkylsulfonyl group, a C₁₋₆ alkylsulfinyl group and a C₁₋₆ alkyl group (the C₁₋₆ alkyl group is optionally substituted by 1 or 2 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group); or
 - (4d) a 5- or 6-membered aromatic heterocyclyloxy group optionally substituted by 1 to 3 substituent(s) selected from a C₁₋₆ alkyl group (the C₁₋₆ alkyl group is optionally substituted by 1 or 2 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group), a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group.
- (Previously presented) The compound of claim 22, wherein X is 42.
 - (6d) a C₇₋₁₃ aralkyloxy-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a C₁₋₆ alkoxy-carbonyl group and a carbamoyl group;

Amendment dated April 5, 2010

After Non-Final Office Action of January 5, 2010

(6l) a C_{6-14} aryl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a halogen atom, a cyano group, an optionally halogenated C_{1-6} alkyl group, a C_{1-6} alkoxy group, a carboxyl group, a C_{1-6} alkoxy-carbonyl group, an aromatic heterocyclic group, a non-aromatic heterocyclic group and a carbamoyl group;

- (6o) an aromatic heterocyclyl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a C_{1-6} alkyl group, a C_{6-14} aryl group, a C_{7-13} aralkyl group, a C_{1-6} alkoxy group, a carboxyl group, a C_{1-6} alkoxy-carbonyl group and a carbamoyl group; or
- (6p) a nitrogen-containing heterocyclyl-carbonylamino group optionally substituted by 1 to 3 substituent(s) selected from a c_{1-6} alkyl group (the c_{1-6} alkyl group is optionally substituted by 1 to 3 substituent(s) selected from a carboxyl group, a c_{1-6} alkoxy-carbonyl group and a carbamoyl group), a carboxyl group, a c_{1-6} alkoxy-carbonyl group and a carbamoyl group.